Neo-Neon

LED Vision Mesh Screen Operation Manual

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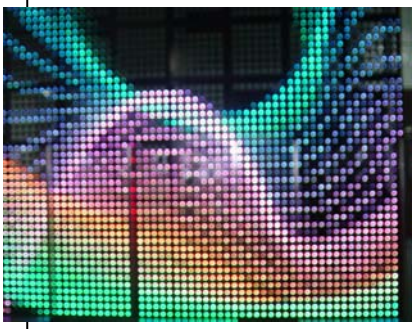
Chapter 1 Specification and Function Parameters



Product details are subject to change without notices.

Power supply shall be kept disconnected before installation is complete.

Thanks for choosing Neo-Neon LS-I-40-5OVAL-MESH-RGB, which is a kind of indoor substantial pixel LED display. Through static scan, the displayed image is Highly-Fidel in quality and profuse in colors. It is an excellent display choice for advertisement, bank, shopping center, school, restaurant, amusement place and so on.

- Module size: 640mm×640mm×65mm
- Signal Input: 16P Double rank D－SUB connecting piece（only the protruding rank works）
- Pitch：40mm
- Pixel composition：2R1G1B 4Φ5 oval LED
- Module resolution(length*width)：16*16
- Density（dot/ m2）：625
- Brightness（cd/ m2）：1300
- Optimal viewing distance（m）：60
- Module peak value power（≤W）：75
- Module average power（≤W）：40
- Module weight(kg)：10
- Scanning mode：Static scan
- Viewing angle：120° （60° horizontally and vertically）
- Driven voltage(V)：4.5～5.5
- Gray scale：256 levels respectively
- Frame change speed：≥60（frame/second）
- Control mode：In step with the computer monitor
- Screen life：≥100,000USD
- Blind spot rate：≤0.0002
- Operating voltage：AC220V±15％ 47～64HZ
- Control distance(m)：<130
- Temperature environment：-10℃～50℃
- Humidity environment：10％～90％RH

Product Performance:

- relatively better evenness, mosaic decreased in some degree and a good lighting consistency
- Substantial pixels display, thus excellent effect of displaying images, characters and so on;
- A large viewing angle, 120° horizontally and vertically; no distortion and color differentiation
- Quality: whole-process strict control from original material to finished product, assure reliable high-quality
- Service: More consummate, more comprehensive

Performance Features

DVI Display Card Compatible: directly connectable with DVI port

Single Cable Transmission； 1pc standard SUPER CAT IBDN for transmission

Long distance transmission: advanced data transmission technology, using kilo-mega data communication chips, static electricity-resistant, lighting shock-resistant, support non-relay long distance transmission, max length of 130meter, and 100% data recoverable

Reliability: 4-layer PCB and single-chip super scale integrate circuit design; promote system stability and reliability greatly

Chapter 2. Structure and Installation

Neo-Neon usually packs 2pcs of Screen Module together once; the following structural display module can be seen after releasing package; module size is 640*640mm. Main fixture of a single LED Mesh Screen is composed of A3 frame and LED Screen Panel which is mounted on the frame with screws. 1pc frame can mount 16pcs of panel and 1pc of power supply; the power supply will be fixed onto the strength board of the frame. On each frame there are 12 M6 installation screws on each frame, every 16pcs of frame shall be given a scanning board, which will be fixed to the strengthening board of the frame with screws. For the screen is a specific feature, thus we need to specify installation metal bracket according to panel and accessory specification. Metal bracket shall be prepared by customers themselves if there is no special declaration. We strongly suggest customers to fix each mesh screen at the M6 holes noted in following diagram, and lock screen onto the mounting brackets with screws.

Chapter 3. Installation Steps for LED Screen System

LED Screen can function normally after finishing all these steps according to the following steps.

No.1. Installation for computer operation system

Installation for Windows2000 or Windows XP operation system, Windows XP operation system is strongly recommended.

No.2. Installation for LED Screen controlling card

Neo-Neon will provide a piece of main card for screen (contained with PCI serial port and com port), a piece of

DVI serial port wire and com port wire, Please refer to the following steps：

1） Turn off the power supply and uncover the PC host computer, insert the screen main card into the PCI slot of the host computer

2）Connect the PC com port and the luminance adjusting port of the main card with com port wire.

No.3. Installation for Software and Hardware of the Display Card

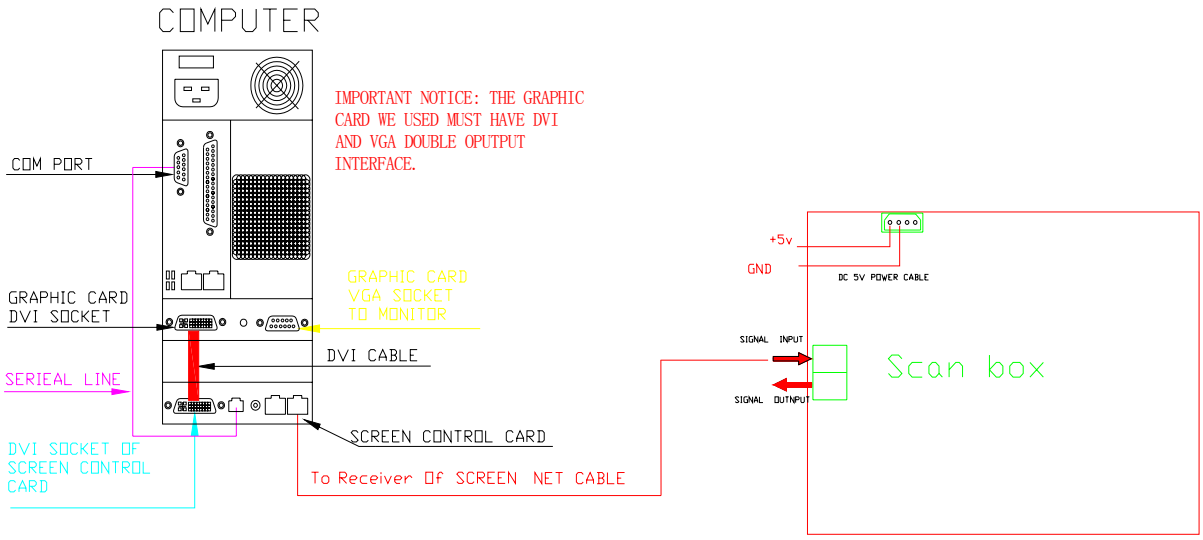
1）Installation for hardware of the display card：

We recommend to use the display card which contained with both VGA and DVI output port, such as GeForce 7100GS（recommend to use）.

2）Connect the DVI port of both the display card and the main card with DVI wire, and then fasten the wire with bolts.

No.4. Hardware connection

Connect the power supply of screen, signal wire, the signal wire for scanning board and screen, signal wire for PC and scanning board, please refer to ： *Power and signal cable connection diagram.dwg*



No.5. PC Software Setup

Connect the PC system and open up after finishing the hardware installation:

1） Install display card drive software: setup drive process beforehand, which is very important for the latter setup.

2）Install LED Studio8 software　Serial No.：88888，

3　Set the property of PC display card, enable the output of DVI port, and the renovating frequency is 60Hz, and hardware acceleration set as none. Please refer to Addendum for detailed operation

4）Configure receiver：Any details please refer to *Configure receiver.Doc*

5）Setting the size and position of the screen, any details please refer to *LED Studio user's manual*

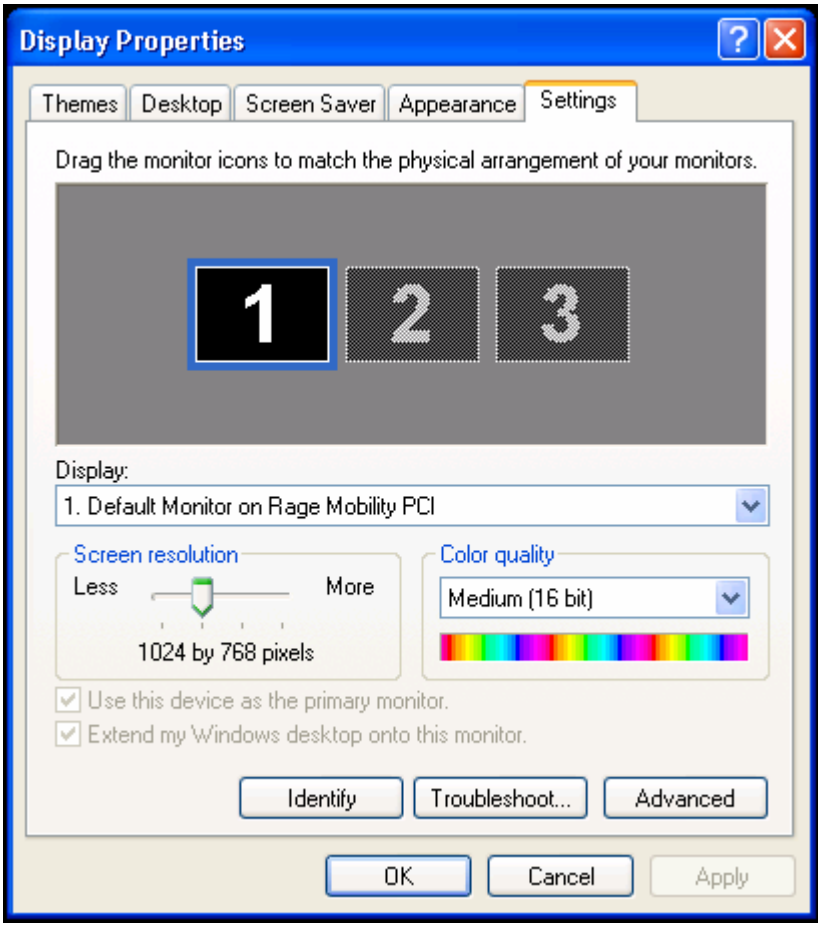
7）Add display file, any details please refer to *LED Studio user's manual*

Screen can display picture normally after completing all those steps.

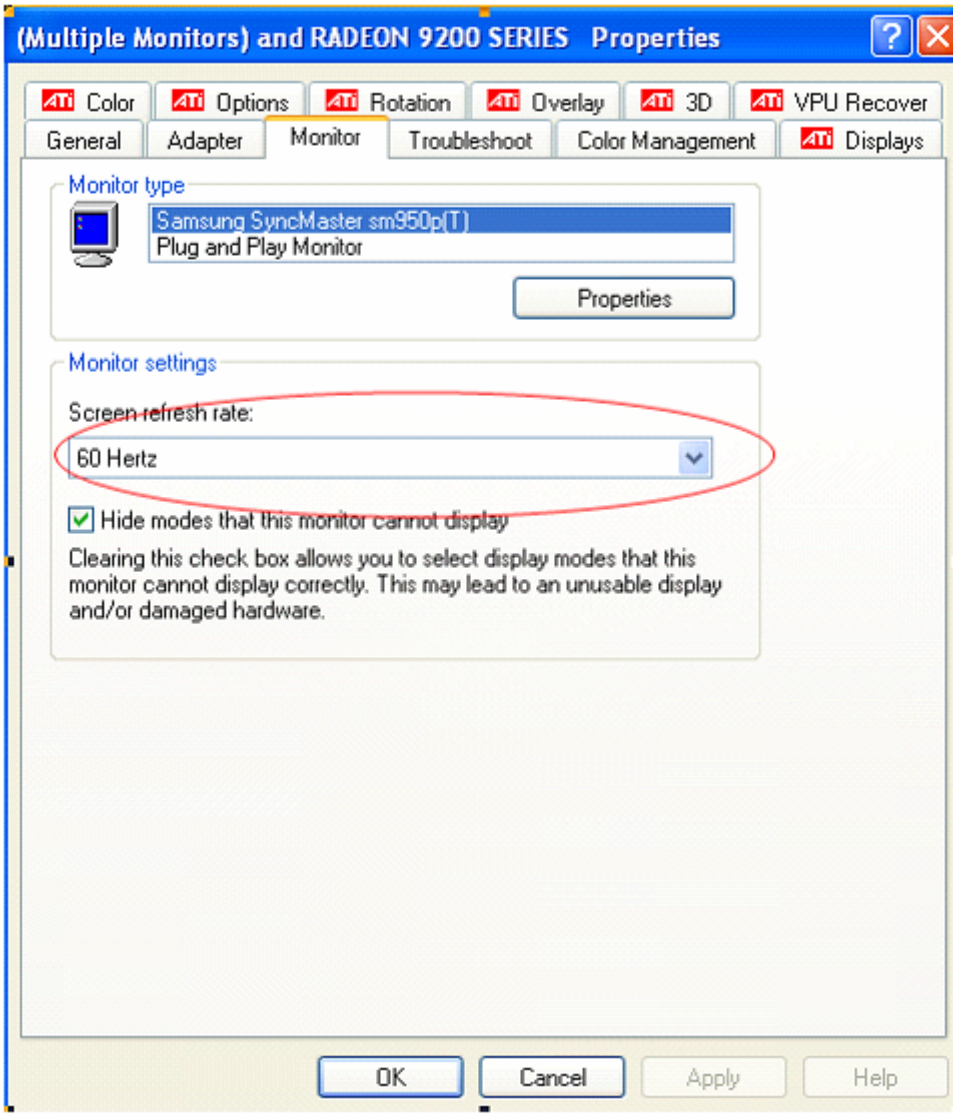
Addendum：

Addendum A： ATI display card setup

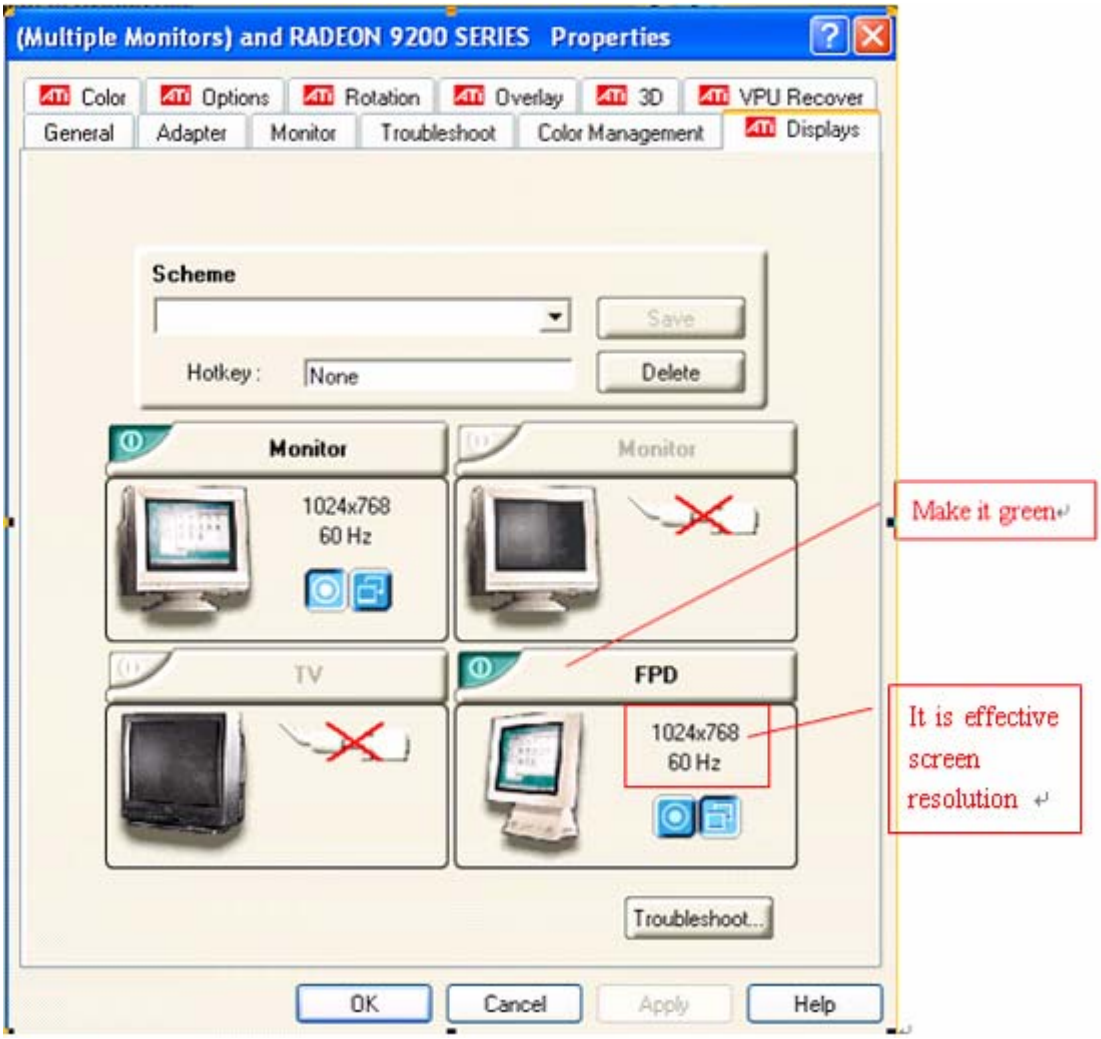
1. Press right bottom of MOUSE on the blank of table-board, enter into shortcut menu and choose Properties, setting the screen resolution to 1024 x 768 pixels as follows：



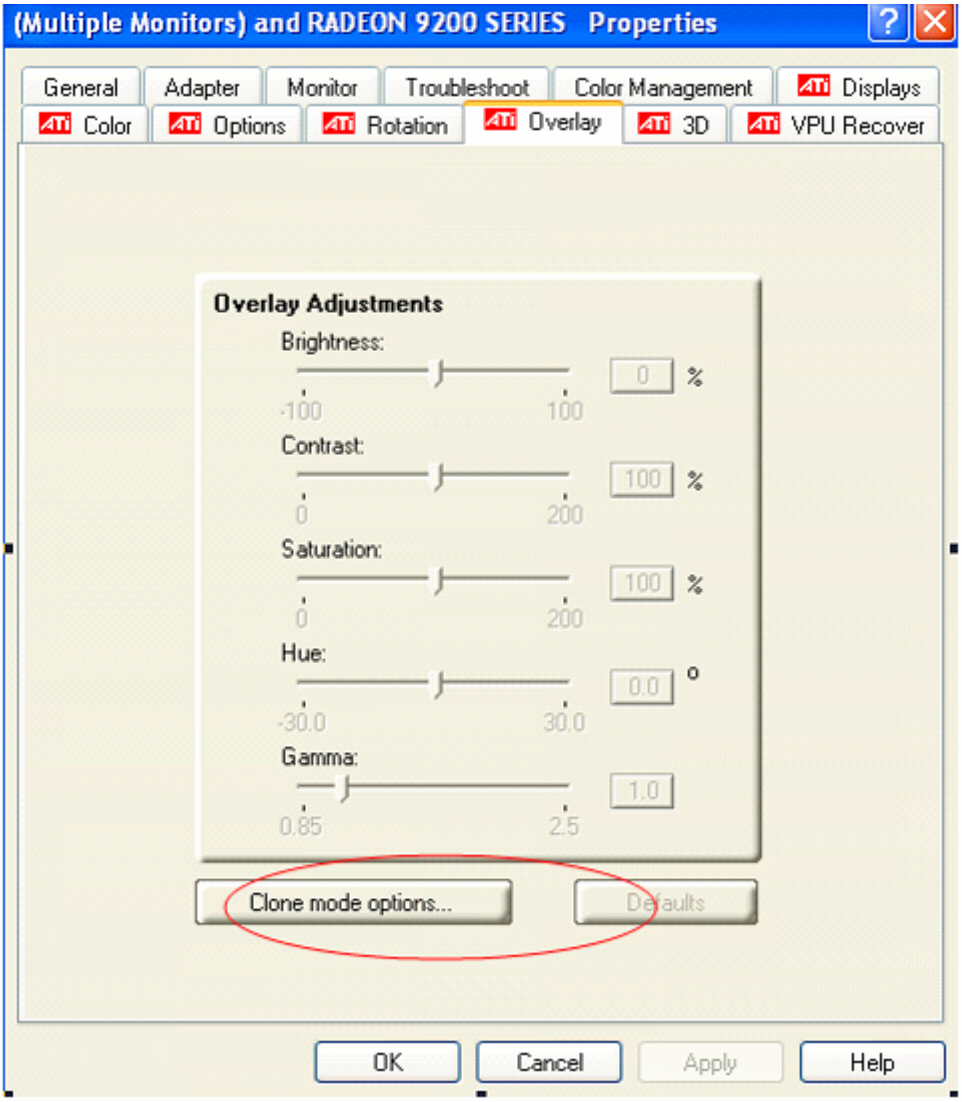
2. Press “Advanced” to setting the renovating frequency of the monitor to 60HZ as follows：

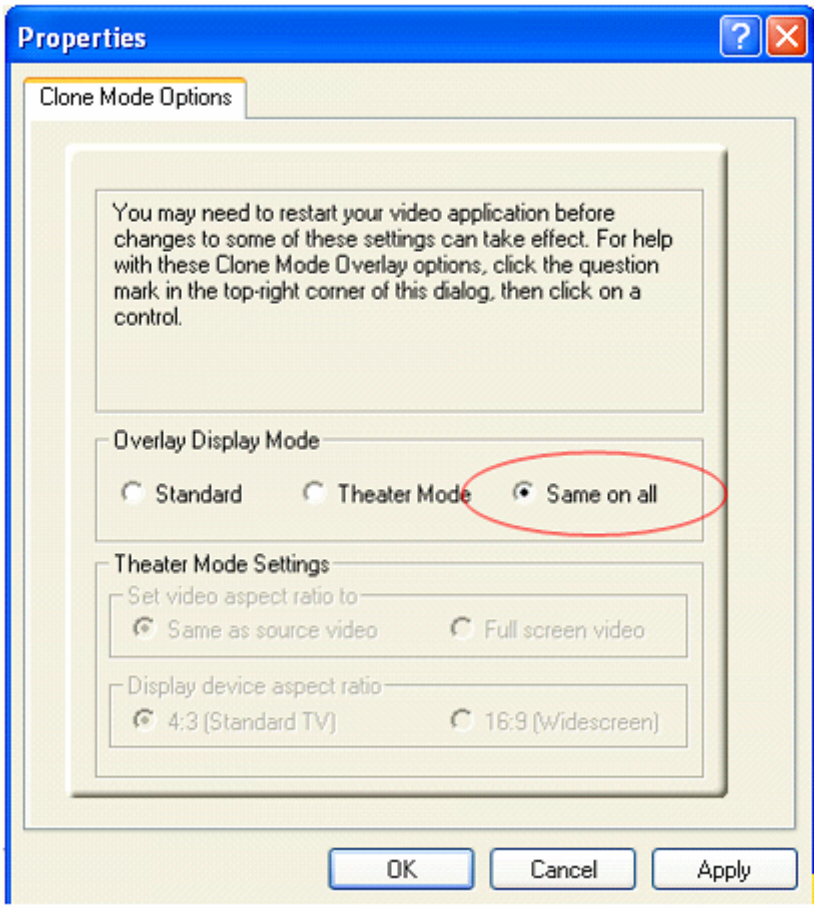


3. Press “display” option，turn FPD to green color as follows：



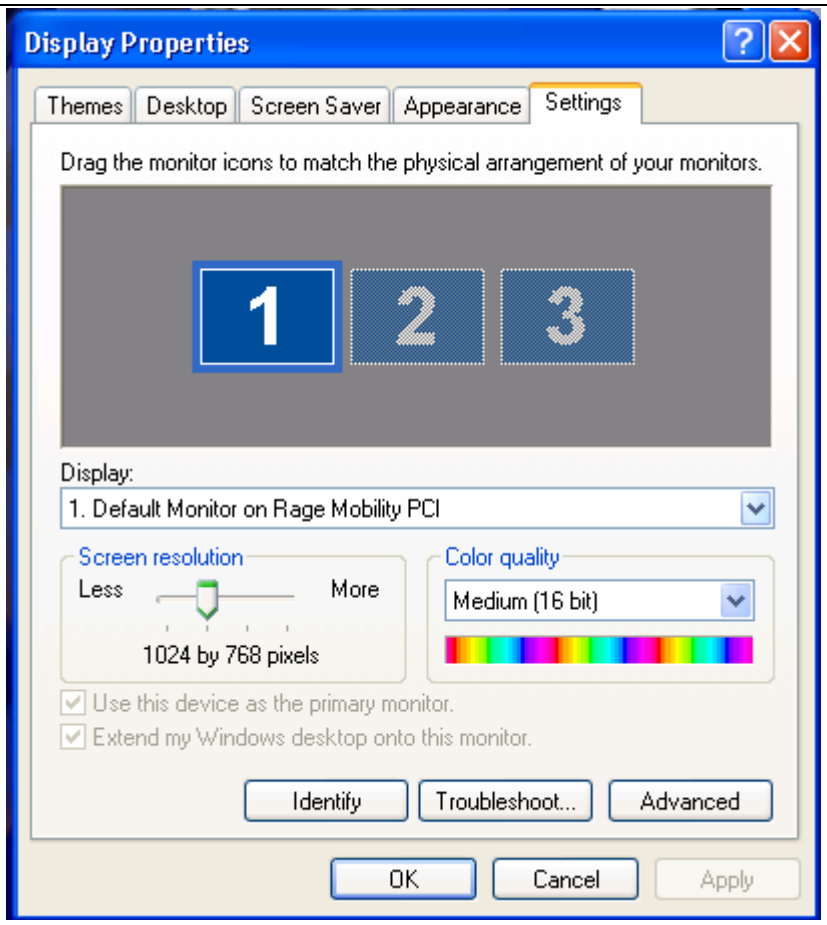
4.Press “Recover” option, enter into “clone mode options”, and the choose “Same on all” as follow：


(Multiple Monitors) and RADEON 9200 SERIES Properties
General
Adapter
Monitor
Troubleshoot
Color Management
Displays
Color
Options
Rotation
Overlay
3D
VPU Recover
Overlay Adjustments
Brightness:
0
%
-100
100
Contrast:
100
%
0
200
Saturation:
100
%
0
200
Hue:
0.0
°
-30.0
30.0
Gamma:
1.0
0.85
2.5
Clone mode options...
Defaults
OK
Cancel
Apply
Help

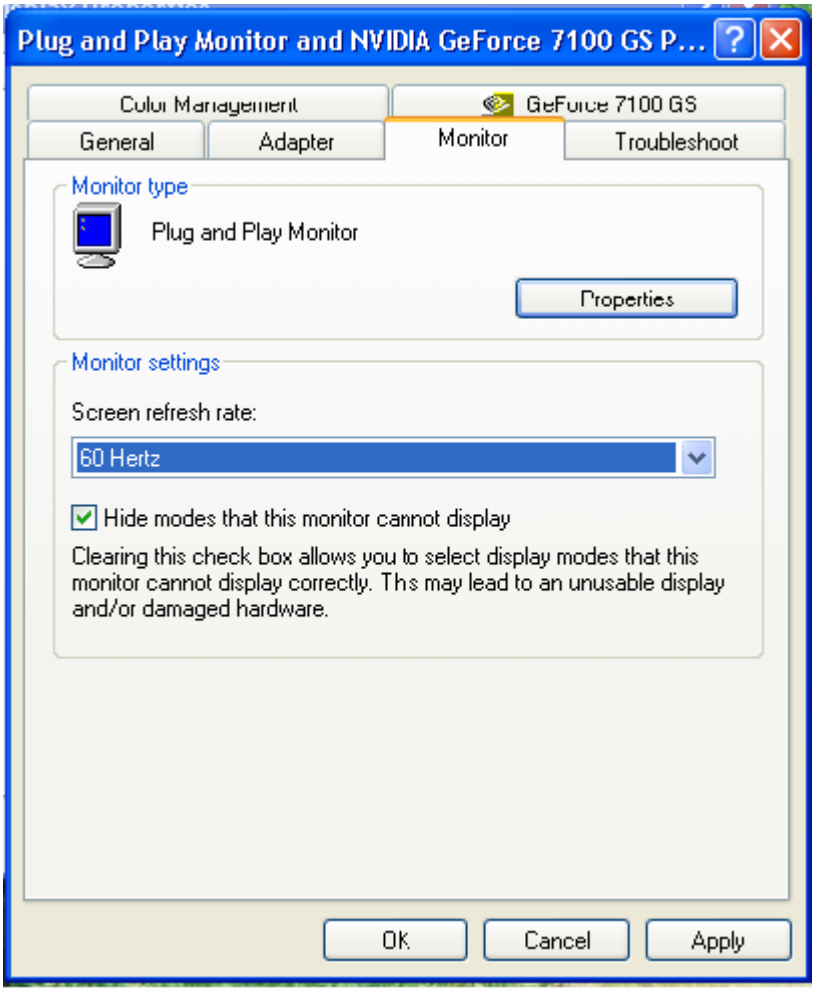

Properties
Clone Mode Options
You may need to restart your video application before changes to some of these settings can take effect. For help with these Clone Mode Overlay options, click the question mark in the top-right corner of this dialog, then click on a control.
Overlay Display Mode
Standard
Theater Mode
Same on all
Theater Mode Settings
Set video aspect ratio to
Same as source video
Full screen video
Display device aspect ratio
4:3 (Standard TV)
16:9 (Widescreen)
OK
Cancel
Apply

Addendum B: GEFORCE Display setup

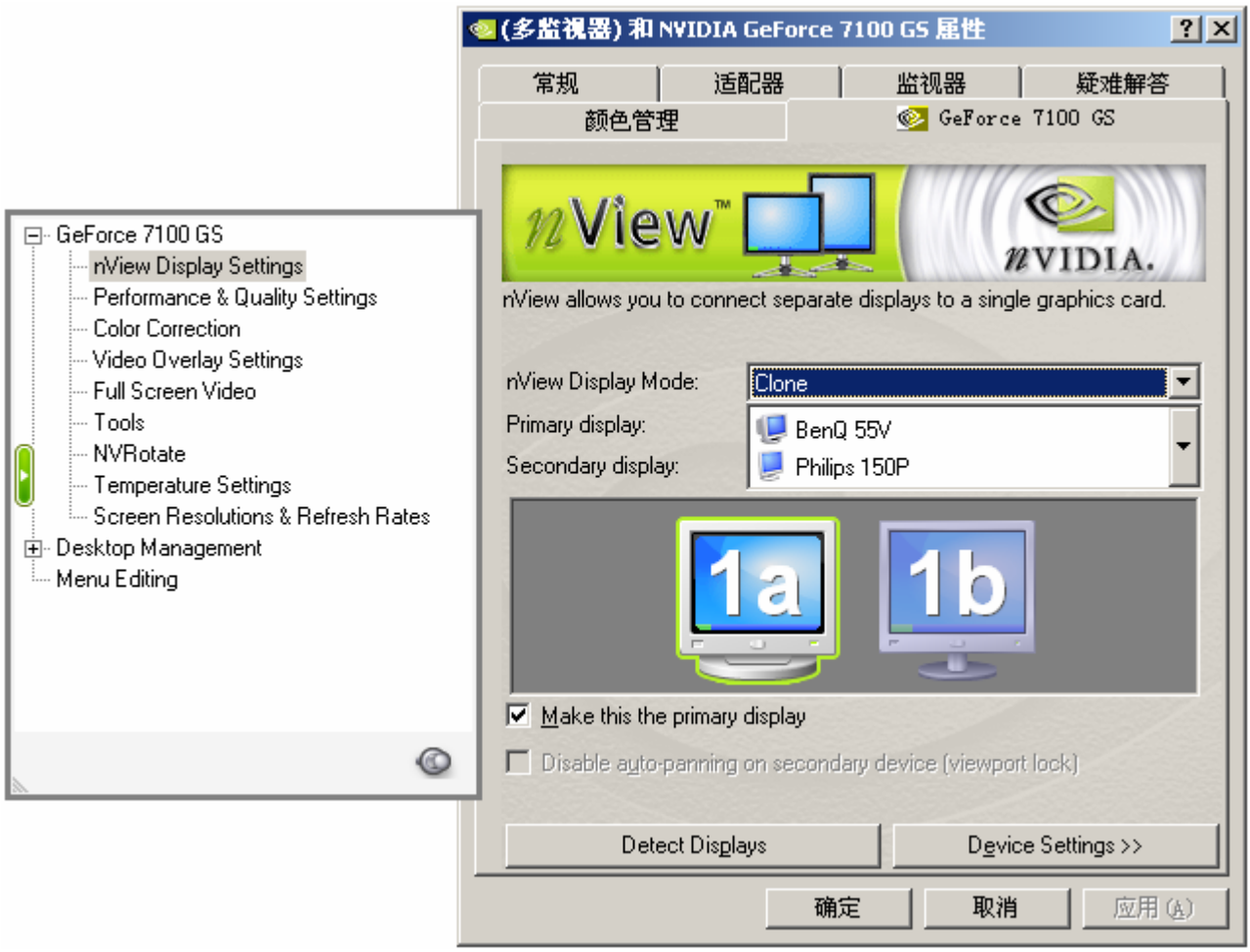
1. Press right bottom of MOUSE on the blank of table-board, enter into shortcut menu and choose Properties, setting the screen resolution to 1024 x 768 pixels as follows:



2、Press“Advanced”to setting the refresh rate of the monitor to 60HZ as follows：



3、Press“GeForce 6200 Turbocache(TM)” options，setting the nView. Choose nView Display Settings menu, and press “Clone” on the options box as follows：



Choose “Application” and “Confirm”.Quit from Properties Selection.

No.2. Troubleshooting:

System checking method

Please check system according to the following steps if the LED Screen can not work normally after finishing the connection and the power supply：

1、 Check the power supply system of the screen

2、 Check the settings of LED control software

3、 Check power supply, unit screen module, scanning board, power supply indicator light. Measure connector plugs of the relative circuit board is DC5V±0.3by multi-meter.

4、 The Yellow Light on the scanning board will winkle under normal condition.

5、 The Red Light and the Yellow Light on the main card will last-shining and twinkle respectively under normal condition. If the Red Light does not work, check the main card. If the Yellow Light does not twinkle, check the properties settings of main card or check the DVI wire.

6、 Check LED screen module circuit according to the following steps：

(1) Check if the connect wires between unit screen module are connect according to the indication means on the unit board as the following picture.

(2) Check scanning board polarity and module connection as the following picture：

(3) Check the indication light of main card.

(4) Check the indicating light of the scanning board.

(5) Check the connect system refer to the accessory connect mode.

(6) Check the connection of DVI wire.

(7) Check the display card settings; please refer to the PC software setting part.

Common Troubles

Trouble Description	Trouble Analysis	Resolution
The whole screen do not work	The power supply does not function	Increase power supply
	LED Control software does not turn on	Setting control software
	Transmission cable does not connect well	Reconnect transmission cable
	The display shows black color	Re-set the table-board menu
	Module power supply does not connect well or voltage does not match	Make sure the voltage above DC4.75Ⅴ
	The connect wire between module and scanning board is too long	Cut off the cable wire
Screen twinkle	Data wire above the stated length or some trouble with cable wire	Make sure the cable wire quality
	Data wire does not fasten stably.	Re-insert the wire
Control software are out of control	Some trouble with LED unit module	Check the module
	Display card setting incorrect.	Reinstall the Display card
	LED Control software is locked	Open the control software
	Power supply will not increase when increasing power supply to the module	Increase power supply of scanning board

Addendum 4：

Signal wire facture：

Communication wire（connect scanning board and main board）according to the following standards.

1. Take off 3cm at the front end outer skin of the double-twist cable with special double-twist cable peeler (or other tools)

2. Match wire correctly

Please make sure that：wire1 and wire 2 form a circle match；wire3 and wire4 form a circle match；wire5 and wire6 form a circle match；wire7 and wire8 form a circle match. At both ends of the wire, same methods will be used. The wire match is arranged in serration after certain color sequence.（Such as: 1、white orange, 2、orange, 3、white green, 4、green, 5、

blue, 6、white blue, 7、white brown, 8、brown）.

After matching the wires, trim the wires; cut off the bare part of the double-twist cable, with only 15mm length left outsides. Wire heads shall be trimmed to uniformity, then put each wire of the double-twist wire into to RJ45 connector lead, the first lead shall be connected with orange-whitish wire, and the following in the same sequence. After all the double-twist wires have been placed tightly, then press wire and let the wire to meet with the RJ45 connectors with RJ45 wire-meet clamp

On the other end, the connection method is the same; after all above action completed, the RJ45 connectors shall be in uniformity\. At, test the connection with measuring equipment, then the RJ45 connector is OK.

Signal wire（connect screen module and scanning board, module and module）should be made as following steps:

Step.1.： 1. white orange, 2. orange, 3.white green, 4.green, 5.blue, 6.white blue, 7.white brown, 8、brown）
Step2.：1.brown , 2. white brown, 3. white blue, 4. blue, 5.green, 6.white green, 7.orange, 8.white orange ）
At the two ends, the wire shall be arranged in different sequences

If all above measures have been take, problems still can not be solved, please contact Neo-Neon through phone call to get after-sale service.